

# Thermo Scientific Revco CxF Series Ultra-Low Temperature Freezers

## Versatile chest configurations. Reliable sample protection.

Our CxF Series chest freezers feature all the sample protection features of our ExF and DxF freezers in four convenient sizes. Choose a  $-40^{\circ}\text{C}$  or a  $-86^{\circ}\text{C}$  option, as well as a full range of racking solutions for maximum sample storage.



- Heavy gauge, cold-rolled steel exterior construction with a powder coat paint finish that resists chipping and rust
- 5" (12.7 cm) foamed-in-place, polyurethane insulation
  - Optional built-in chart recorder or data logger for continuous monitoring

Easy-to-remove, washable air filter provides protection from dust on condenser, reducing the risk of refrigeration malfunction or risk to samples



- Eye-level, easy-to-use microprocessor control panel; knee level on 3 cu. ft. (85L) models
- Optional  $\text{CO}_2$  or  $\text{LN}_2$  safety back-up system for additional protection in the event of a power or mechanical failure
- Message center: 12-character alphanumeric LED displays setpoints, system status and alarm messages
- Access code to ensure setpoint security

- Ergonomic, lockable door handle
- Convenient interior covers let you minimize sample exposure to outside conditions
- Inner sub-lids protect bulk samples from ambient exposure during single sample retrievals
- Stainless steel interior



RS-232 and 4-20 milliamp analog outputs for independent monitoring devices and recorders

Heavy duty casters with locking tandem wheel design for smooth mobility

**versatile.**  
**reliable.**

## Thermo Scientific Revco CxF Series Ultra-Low Temperature Chest Freezers (Temperature Range: -50°C to -86°C)

Model No.	Capacity cu. ft. (liters)	Cryobox Capacity 2 in.	Electrical	Amps/Breaker (Plug)	Interior Dimensions H x W x D in. (cm)	Exterior Dimensions H x W x D in. (cm)	Shipping Weight lbs. (kg)
ULT390-10-A	3.0 (85)	63	115V / 60 Hz	10.5/20 (NEMA 5-20)	16.5 x 18.5 x 18.5 (41.9 x 47.0 x 47.0)	43.8 x 28.5 x 29.9 (111.3 x 72.4 x 75.9)	432 (196)
ULT390-10-V			230V / 50 Hz	5.4/15 (European)			
ULT1390-10-A	12.7 (360)	252	115V / 60 Hz	16/20 (NEMA 5-20)	28.0 x 42.5 x 18.5 (71.1 x 108.0 x 47.0)	40.5 x 72.0 x 33.4 (102.9 x 182.9 x 84.8)	716 (325)
ULT1390-10-D			208-230V / 60 Hz	12/15 (NEMA 6-15)			
ULT1390-10-V			230V / 50 Hz	12/15 (European)			
ULT1790-10-A	17.0 (481)	348	115V / 60 Hz	16/20 (NEMA 5-20)	28.0 x 58.8 x 18.5 (71.1 x 149.4 x 47.0)	40.5 x 87.6 x 33.8 (102.9 x 222.5 x 85.9)	821 (372)
ULT1790-10-D			208-230V / 60 Hz	12/15 (NEMA 6-15)			
ULT1790-10-V			230V / 50 Hz	12/15 (European)			
ULT2090-10-A	20.0 (566)	396	115V / 60 Hz	16/20 (NEMA 5-20)	28.0 x 66.5 x 18.5 (71.1 x 168.9 x 47.0)	40.5 x 96.0 x 33.4 (102.9 x 243.8 x 84.8)	833 (378)
ULT2090-10-D			208-230V / 60 Hz	12/15 (NEMA 6-15)			
ULT2090-10-V			230V / 50 Hz	12/15 (European)			

## Thermo Scientific Revco CxF Series Ultra-Low Temperature Chest Freezers (Temperature Range: -10°C to -40°C)

Model No.	Capacity cu. ft. (liters)	Cryobox Capacity 2 in.	Electrical	Amps/Breaker (Plug)	Interior Dimensions H x W x D in. (cm)	Exterior Dimensions H x W x D in. (cm)	Shipping Weight lbs. (kg)
ULT350-10-A	3.0 (85)	63	115V / 60 Hz	5/15 (NEMA 5-20)	16.5 x 18.5 x 18.5 (41.9 x 47.0 x 47.0)	43.8 x 28.5 x 29.9 (111.3 x 72.4 x 75.9)	395 (179)
ULT350-10-V			230V / 50 Hz	3/15 (European)			
ULT1350-10-A	12.7 (360)	252	115V / 60 Hz	6.5/15 (NEMA 5-20)	28.0 x 42.5 x 18.5 (71.1 x 108.0 x 47.0)	40.5 x 72.0 x 33.4 (102.9 x 182.9 x 84.8)	659 (299)
ULT1350-10-D			208-230V / 60 Hz	6.5/15 (NEMA 6-15)			
ULT1350-10-V			230V / 50 Hz	6.5/15 (European)			
ULT1750-10-A	17.0 (481)	348	115V / 60 Hz	6.5/15 (NEMA 5-20)	28.0 x 58.8 x 18.5 (71.1 x 149.4 x 47.0)	40.5 x 87.6 x 33.8 (102.9 x 222.5 x 85.9)	764 (347)
ULT1750-10-D			208-230V / 60 Hz	6.5/15 (NEMA 6-15)			
ULT1750-10-V			230V / 50 Hz	6.5/15 (European)			
ULT2050-10-A	20.0 (566)	396	115V / 60 Hz	6.5/15 (NEMA 5-20)	28.0 x 66.5 x 18.5 (71.1 x 168.9 x 47.0)	40.5 x 96.0 x 33.4 (102.9 x 243.8 x 84.8)	776 (352)
ULT2050-10-D			208-230V / 60 Hz	6.5/15 (NEMA 6-15)			
ULT2050-10-V			230V / 50 Hz	6.5/15 (European)			

## Monitoring and Remote Alarms

Description	Voltage	Model No.
<b>Remote Alarm with Audible Signal:</b> Extend the freezer's on-board alarms systems to remote locations in the facility.	120V / 60Hz	<b>5612-1A</b>
	230V / 50Hz	<b>5612-3V</b>
<b>Sensaphone Telephone Dialing System:</b> Monitors up to four channels; Dials up to four numbers (not CE). Dedicated phone line is required.	120V / 60Hz	<b>400047</b>
	220V / 50Hz	<b>400182</b>
<b>Sensaphone Telephone Dialing System:</b> Monitors up to eight channels; Dials up to eight numbers (not CE). Dedicated phone line is required.	120V / 60Hz	<b>400134</b>
	220V / 50Hz	<b>400183</b>
<b>Temperature / Power Monitor:</b> External digital and audible/visual alarms monitor the temperature and power supply of the freezer. Includes temperature probe.	120V / 60Hz	<b>400048</b>
	220V / 50Hz	<b>400049</b>

## Options (Field-installed must be installed by a qualified professional)

Description		ULT390 ULT350	Other Models
<b>LN<sub>2</sub> Backup System</b> Maintains temperature down to -80°C with liquid nitrogen	Factory Installed	1950535	
	Field Installed	1950536	
<b>CO<sub>2</sub> Backup System</b> Maintains temperature down to -70°C with CO <sub>2</sub>	Factory Installed	1950533	
	Field Installed	1950534	
<b>Chart Recorder 6"</b> ((15.2cm), seven day ink recorder, to -150°C includes 50 chart papers	Factory Installed	398224	398226
	Field Installed	398225	398223
<b>Data Outputs</b> (Factory Installed Only)	RS-232 (0-1V)	398213	
	RS-485 (0-1V)	398214	
	RS-485 (0-5V)	398215	

## Accessories

Description	ULT390 ULT350	Other Models
<b>Replacement Air Filter</b> (pack of five)	195947	195948
<b>Ink Chart Paper</b> (pack of 50)	17020	
<b>Inkless Chart Paper</b> (pack of 50)	180000	
<b>Replacement Back-Up Battery</b>	400159	
<b>Red Felt Tip Chart Pen</b>	245231	
<b>Blue Felt Tip Chart Pen</b>	245232	
<b>LN<sub>2</sub> Transfer Hose</b> Flexible 6' metal hose. 0.5" diameter, 45° flare with swivel ends	4000401	
<b>Wall Clamp</b> CO <sub>2</sub> cylinder holder for securing tank to the wall in accordance with OSHA guidelines	950316	
<b>High-Pressure Liquid CO<sub>2</sub> Hose</b> Kink-resistant, stainless steel lined, double-braided sheath. 316 stainless steel NPT F fitting. Max. working pressure 25,000 psig. 6' long	991505	
<b>Cryo Gloves</b> Medium	4425	
<b>Cryo Gloves</b> Large	4426	

## Fiberboard Grid Dividers

Model No.	Dimensions	Quantity	Holds
5958	10 x 10, 0.49" cell	12	12mm vials (100)
820100	10 x 10, 0.49" cell	1	12mm vials (100)
6212	9 x 9, 0.54" cell	12	13mm vials (81)
820081	9 x 9, 0.54" cell	1	13mm vials (81)
5960	8 x 8, 0.61" cell	12	14mm vials (64)
820064	8 x 8, 0.61" cell	1	14mm vials (64)
5959	7 x 7, 0.7" cell	12	16mm vials (49)
820049	7 x 7, 0.7" cell	1	16mm vials (49)
820025	5 x 5, 0.98" cell	1	25 vials
820016	4 x 4, 1.22" cell	1	16 vials

## Water-Cooled Condenser Option

The water-cooled condenser option is available on our -86°C upright and chest freezers. Your work environment stays cooler because 50% less heat is emitted to your surroundings (i.e. less BTU rejection). A water regulating valve automatically controls the water flow needed to maintain the compressor discharge pressure. Cooler compressor temperatures enhance compressor stability and reliability. Like our standard freezers, those with the water-cooled condenser options are also UL listed to Canadian and United States requirements and bear the CE mark.

The following specifications apply to tower and city water sources:\*

### Water Pressure and Temperature

Maximum Pressure	150 psig
Maximum Temperature	29.4°C

### Connections

Inlet	0.5" compression
Outlet	0.5" compression

### Water Flow Rate Required (per minute)

Tower Water	3.0 gal. (11.4L)
City Water	1.0 gal. (3.8L)

### Drain Required?

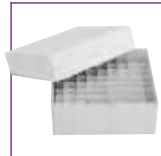

Tower Water	No (return line)
City Water	Yes

Installation requires a qualified technician and should include proper adjustment of the regulating valve which controls the discharge pressure.







\* Actual requirements may vary due to specific water pressure conditions.

Model No.	For Use With
195967	All chest freezers except 3 cu. ft. (85L)

## Thermo Scientific Cryoboxes and Dividers

	<b>2" (5.1cm) Fiberboard Cryo Boxes</b> 5" x 5" (12.7 cm x 12.7 cm) water repellent cardboard	<b>Model No.</b>	<b>Quantity</b>	<b>Dividers</b>
		5954	12	none
		820002	1	81
		820109	1	100
	<b>3" (7.6cm) Fiberboard Cryo Boxes</b> 5" x 5" (12.7 cm x 12.7 cm) water repellent cardboard	<b>Model No.</b>	<b>Quantity</b>	<b>Dividers</b>
		5956	12	none
		820003	1	81

## Thermo Scientific Revco CxF Series Ultra-Low Temperature Chest Freezer Racks

	Model No.	Description W x H x D in. (cm)	Freezer Vol. cu. ft. (liters)	Boxes Per Rack (Plates)	Racks/Freezer (Plates)	Boxes/Freezer (Plates)
	398184	<b>2" Box Rack</b> 5.5 x 16 x 5.5 (14 x 40.6 x 14)	3 (85)	7	9	63
	398186	<b>2" Box Rack</b> 5.5 x 26.5 x 5.5 (14 x 67.3 x 14)	12.7 (360)	12	21	252
			17 (481)	12	29	348
			20 (566)	12	33	396
	398185	<b>3" Box Rack</b> 5.5 x 16 x 5.5 (14 x 40.6 x 14)	3 (85)	5	9	45
	398187	<b>3" Box Rack</b> 5.5 x 26.5 x 5.5 (14 x 67.3 x 14)	12.7 (360)	8	21	168
			17 (481)	8	29	232
			20 (566)	8	33	264
	398188	<b>27 Position Microplate Rack</b> 5.3 x 25.8 x 3.5 (13.5 x 65.5 x 8.9)	12.7 (360)	(27)	(33)	(891)
			17 (481)	(27)	(48)	(1,296)
			20 (566)	(27)	(51)	(1,377)
	114048	<b>Wire Basket with Rollers*</b> 11.8 x 12.3 x 16.5 (30 x 31.2 x 42)	12.7 (360)	N/A	5	N/A
			20 (566)	N/A	9	N/A
	189001	<b>Wire Basket Rail Set</b>	12.7 (360)	N/A	N/A	N/A
	189000	<b>Wire Basket Rail Set</b>	12.7 (566)	N/A	N/A	N/A

\* Basket rail set is required